

CLAIMS

We claim:

1. An apparatus for decoding a bitstream encoded via a plurality of encoders, the bitstream being divided into portions, and each portion having an associated model chosen from a plurality of predefined models, the apparatus comprising:
 - a plurality of decoders; and
 - an input switch that routes each portion to a decoder of the plurality of decoders based on the associated model of the portion.
2. The apparatus of claim 1, wherein each decoder of the plurality of decoders is associated with a different predetermined model.
3. The apparatus of claim 2, wherein the plurality of decoders includes a generic decoder.
4. The apparatus of claim 3, wherein if a portion cannot be associated with one of a plurality of predetermined models, then the portion is routed to the generic decoder.
5. The apparatus of claim 4, further comprising:
 - an output switch for controlling an output signal routed from one of the plurality of decoders.
6. An apparatus for decoding a bitstream composed of video content portions, each portion of the bitstream having an associated model and having been encoded via either a generic encoder or an encoder from a plurality of encoders, the apparatus comprising:
 - an input switch that receives the encoded bitstream;
 - a plurality of decoders, wherein the input switch routes each bitstream portion to a decoder of the plurality of decoders based on the model associated with the bitstream portion.
7. The apparatus of claim 6, further comprising:

an output switch connected to an output port from each of the decoders, the output switch determining which signal to output from the plurality of decoders.

8. The apparatus of claim 7, wherein each decoder of the plurality of decoders is associated with a different model.

9. The apparatus of claim 8, wherein the models are associated with video characteristics of the portions.

10. The apparatus of claim 9, wherein the characteristics comprise scene concepts, properties of the scene, camera operations or special effects.

11. A device for decoding video content divided into portions, each portion being associated with either a generic model or a model from a plurality of predefined models, the device comprising:

a generic decoder;

a plurality of decoders, each decoder of the plurality of decoders being associated with different model of the plurality of predefined models;

a switch that routes each portion of the video content to either the generic decoder or a decoder from the plurality of decoders based on the model associated with the video content portion.

12. An apparatus for decoding video content encoded in portions either by a generic encoder or an encoder chosen from a plurality of encoders, each of the plurality of encoders associated with a model chosen from a plurality of predetermined models related to the characteristics of the video content, the video content having video content descriptors used for characterizing the video content, the apparatus comprising:

a switch receiving at a first input port a control signal and receiving the video content at a second input port, the control signal being associated with the video content descriptors, the switch having a plurality of output ports;

9 a generic decoder connected to an output port of the plurality of switch output
10 ports; and

11 a plurality of decoders, each decoder of the plurality of decoders being connected
12 to an output port of the plurality of switch output ports and being associated with a
13 model of the plurality of predetermined models related to the characteristics of the video
14 content, wherein the video content is routed to either the generic decoder or a decoder
15 of the plurality of decoders by the switch.

1 13. The apparatus of claim 12, wherein a portion further comprises a video content
2 subsegment.

1 14. The apparatus of claim 12, wherein a portion further comprises a video content
2 region of interest.

1 15. The apparatus of claim 12, further comprising:
2 a second switch having a plurality of input ports and an output port, each of the
3 plurality of input ports being connected to an output of the generic decoder or an output
4 port of a decoder of the plurality of decoders.